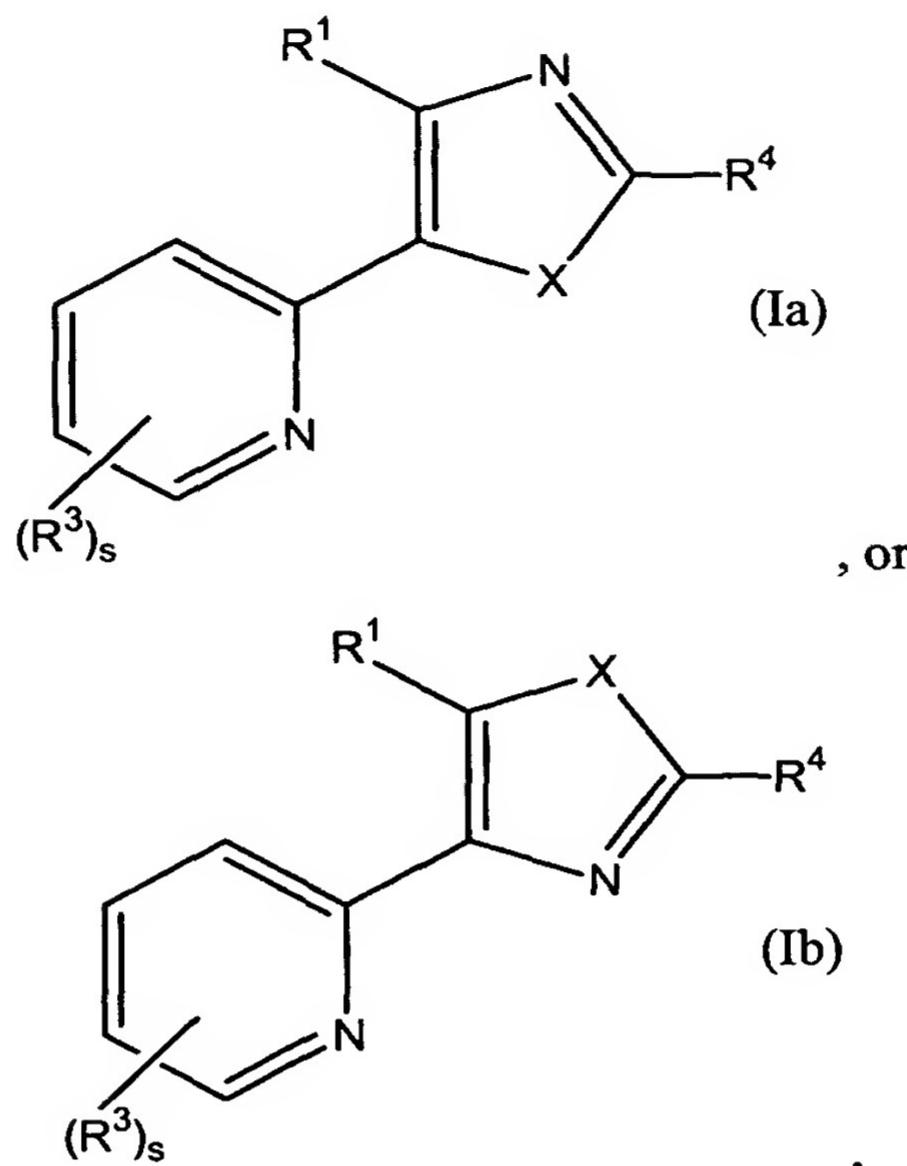


The claimed invention is:

1. A compound of formula (Ia) or (Ib):



5

or a pharmaceutically acceptable salt, prodrug, hydrate, tautomer or solvate thereof, wherein:

- X is O or S;
- 10 R<sup>1</sup> is a saturated, unsaturated, or aromatic C<sub>3</sub>-C<sub>20</sub> mono-, bi- or polycyclic ring optionally containing at least one heteroatom selected from the group consisting of N, O and S, wherein R<sup>1</sup> can optionally be further independently substituted with at least one moiety independently selected from the group consisting of: carbonyl, halo, halo(C<sub>1</sub>-C<sub>6</sub>)alkyl, perhalo(C<sub>1</sub>-C<sub>6</sub>)alkyl, perhalo(C<sub>1</sub>-C<sub>6</sub>)alkoxy,
- 15 (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>6</sub>)alkenyl, (C<sub>2</sub>-C<sub>6</sub>)alkynyl, hydroxy, oxo, mercapto, (C<sub>1</sub>-C<sub>6</sub>)alkylthio, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, (C<sub>5</sub>-C<sub>10</sub>)aryl or (C<sub>5</sub>-C<sub>10</sub>)heteroaryl, (C<sub>5</sub>-C<sub>10</sub>)aryloxy or (C<sub>5</sub>-C<sub>10</sub>)heteroaryloxy, (C<sub>5</sub>-C<sub>10</sub>)ar(C<sub>1</sub>-C<sub>6</sub>)alkyl or (C<sub>5</sub>-C<sub>10</sub>)heteroar(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>5</sub>-C<sub>10</sub>)ar(C<sub>1</sub>-C<sub>6</sub>)alkoxy or (C<sub>5</sub>-C<sub>10</sub>)heteroar(C<sub>1</sub>-C<sub>6</sub>)alkoxy, HO-(C=O)-, ester, amido, ether, amino, amino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl,

- di(C<sub>1</sub>-C<sub>6</sub>)alkylamino(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>5</sub>-C<sub>10</sub>)heterocyclyl(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkyl- and  
 di(C<sub>1</sub>-C<sub>6</sub>)alkylamino, cyano, nitro, carbamoyl, (C<sub>1</sub>-C<sub>6</sub>)alkylcarbonyl,  
 (C<sub>1</sub>-C<sub>6</sub>)alkoxycarbonyl, (C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl,  
 di(C<sub>1</sub>-C<sub>6</sub>)alkylaminocarbonyl, (C<sub>5</sub>-C<sub>10</sub>)arylcarbonyl, (C<sub>5</sub>-C<sub>10</sub>)aryloxycarbonyl,  
 5 (C<sub>1</sub>-C<sub>6</sub>)alkylsulfonyl, and (C<sub>5</sub>-C<sub>10</sub>)arylsulfonyl;

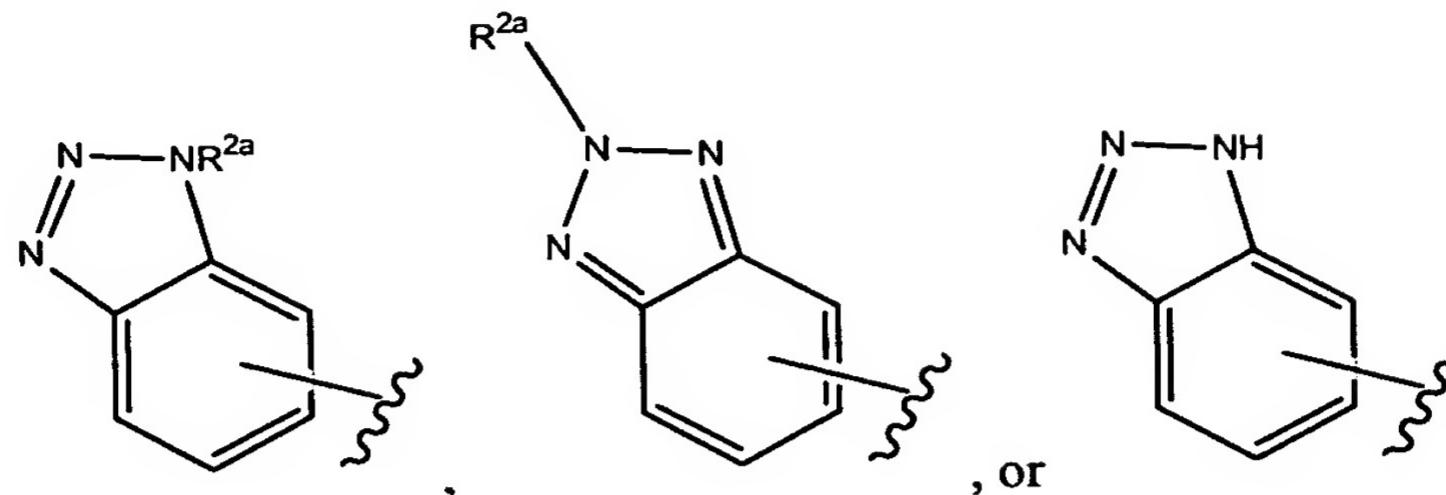
each R<sup>3</sup> is independently selected from the group consisting of: hydrogen, halo, halo(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>6</sub>)alkenyl, (C<sub>2</sub>-C<sub>6</sub>)alkynyl, perhalo(C<sub>1</sub>-C<sub>6</sub>)alkyl, phenyl, (C<sub>5</sub>-C<sub>10</sub>)heteroaryl, (C<sub>5</sub>-C<sub>10</sub>)heterocyclic,  
 10 (C<sub>3</sub>-C<sub>10</sub>)cycloalkyl, hydroxy, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, perhalo(C<sub>1</sub>-C<sub>6</sub>)alkoxy, phenoxy, (C<sub>5</sub>-C<sub>10</sub>)heteroaryl-O-, (C<sub>5</sub>-C<sub>10</sub>)heterocyclic-O-, (C<sub>3</sub>-C<sub>10</sub>)cycloalkyl-O-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-S-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-SO<sub>2</sub>-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-NH-SO<sub>2</sub>-, O<sub>2</sub>N-, NC-, amino, Ph(CH<sub>2</sub>)<sub>1-6</sub>HN-, (C<sub>1</sub>-C<sub>6</sub>)alkyl HN-, (C<sub>1</sub>-C<sub>6</sub>)alkylamino, [(C<sub>1</sub>-C<sub>6</sub>)alkyl]<sub>2</sub>-amino, (C<sub>1</sub>-C<sub>6</sub>)alkyl-SO<sub>2</sub>-NH-, amino(C=O)-, aminoO<sub>2</sub>S-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-(C=O)-NH-,  
 15 (C<sub>1</sub>-C<sub>6</sub>)alkyl-(C=O)-[((C<sub>1</sub>-C<sub>6</sub>)alkyl)-N]-, phenyl-(C=O)-NH-, phenyl-(C=O)-[(C<sub>1</sub>-C<sub>6</sub>)alkyl)-N]-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-(C=O)-, phenyl-(C=O)-, (C<sub>5</sub>-C<sub>10</sub>)heteroaryl-(C=O)-, (C<sub>5</sub>-C<sub>10</sub>)heterocyclic-(C=O)-, (C<sub>3</sub>-C<sub>10</sub>)cycloalkyl-(C=O)-, HO-(C=O)-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-O-(C=O)-, H<sub>2</sub>N(C=O)-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-NH-(C=O)-, [(C<sub>1</sub>-C<sub>6</sub>)alkyl]<sub>2</sub>-N-(C=O)-, phenyl-NH-(C=O)-, phenyl-[((C<sub>1</sub>-C<sub>6</sub>)alkyl)-N]-(C=O)-,  
 20 (C<sub>5</sub>-C<sub>10</sub>)heteroaryl-NH-(C=O)-, (C<sub>5</sub>-C<sub>10</sub>)heterocyclic-NH-(C=O)-, (C<sub>3</sub>-C<sub>10</sub>)cycloalkyl-NH-(C=O)- and (C<sub>1</sub>-C<sub>6</sub>)alkyl-(C=O)-O-, where alkyl, alkenyl, alkynyl, phenyl, heteroaryl, heterocyclic, cycloalkyl, alkoxy, phenoxy, amino of R<sup>3</sup> is optionally substituted by at least one substituent independently selected from (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy, halo(C<sub>1</sub>-C<sub>6</sub>)alkyl, halo,  
 25 H<sub>2</sub>N-, Ph(CH<sub>2</sub>)<sub>1-6</sub>HN-, and (C<sub>1</sub>-C<sub>6</sub>)alkylHN-;

s is an integer from one to five;

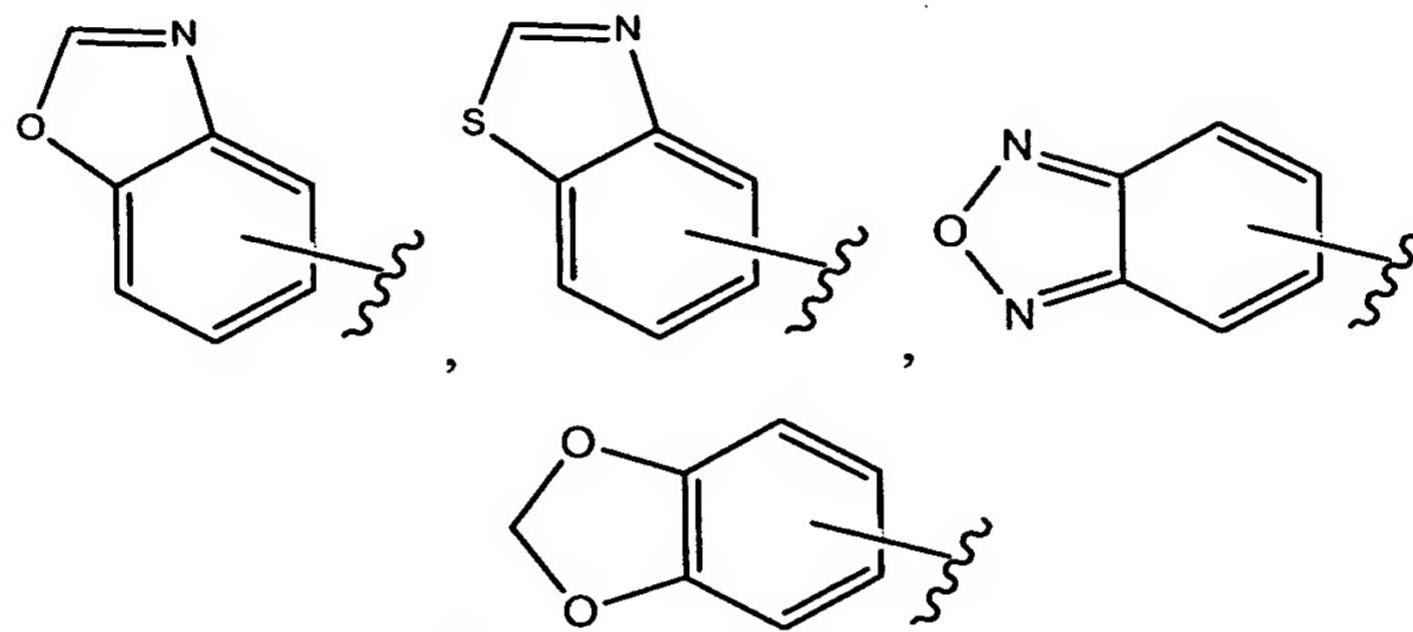
R<sup>4</sup> is independently selected from the group consisting of: hydrogen, halo, halo(C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>2</sub>-C<sub>6</sub>)alkenyl, (C<sub>2</sub>-C<sub>6</sub>)alkynyl, perhalo(C<sub>1</sub>-C<sub>6</sub>)alkyl, phenyl, (C<sub>5</sub>-C<sub>10</sub>)heteroaryl, (C<sub>5</sub>-C<sub>10</sub>)heterocyclic, (C<sub>3</sub>-C<sub>10</sub>)cycloalkyl, hydroxy,

- (C<sub>1</sub>-C<sub>6</sub>)alkoxy, perhalo(C<sub>1</sub>-C<sub>6</sub>)alkoxy, phenoxy, (C<sub>5</sub>-C<sub>10</sub>)heteroaryl-O-,  
(C<sub>5</sub>-C<sub>10</sub>)heterocyclic-O-, (C<sub>3</sub>-C<sub>10</sub>)cycloalkyl-O-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-S-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-SO<sub>2</sub>-,  
(C<sub>1</sub>-C<sub>6</sub>)alkyl-NH-SO<sub>2</sub>-, O<sub>2</sub>N-, NC-, amino, Ph(CH<sub>2</sub>)<sub>1-6</sub>HN-, (C<sub>1</sub>-C<sub>6</sub>)alkylHN-,  
(C<sub>1</sub>-C<sub>6</sub>)alkylamino, [(C<sub>1</sub>-C<sub>6</sub>)alkyl]<sub>2</sub>-amino, (C<sub>1</sub>-C<sub>6</sub>)alkyl-SO<sub>2</sub>-NH-, amino(C=O)-,  
5 aminoO<sub>2</sub>S-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-(C=O)-NH-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-(C=O)-((C<sub>1</sub>-C<sub>6</sub>)alkyl)-N-,  
phenyl-(C=O)-NH-, phenyl-(C=O)-((C<sub>1</sub>-C<sub>6</sub>)alkyl)-N]-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-(C=O)-,  
phenyl-(C=O)-, (C<sub>5</sub>-C<sub>10</sub>)heteroaryl-(C=O)-, (C<sub>5</sub>-C<sub>10</sub>)heterocyclic-(C=O)-,  
(C<sub>3</sub>-C<sub>10</sub>)cycloalkyl-(C=O)-, HO-(C=O)-, (C<sub>1</sub>-C<sub>6</sub>)alkyl-O-(C=O)-, H<sub>2</sub>N(C=O)-,  
(C<sub>1</sub>-C<sub>6</sub>)alkyl-NH-(C=O)-, ((C<sub>1</sub>-C<sub>6</sub>)alkyl)<sub>2</sub>-N-(C=O)-, phenyl-NH-(C=O)-,  
10 phenyl-((C<sub>1</sub>-C<sub>6</sub>)alkyl)-N]--(C=O)-, (C<sub>5</sub>-C<sub>10</sub>)heteroaryl-NH-(C=O)-,  
(C<sub>5</sub>-C<sub>10</sub>)heterocyclic-NH-(C=O)-, (C<sub>3</sub>-C<sub>10</sub>)cycloalkyl-NH-(C=O)- and  
(C<sub>1</sub>-C<sub>6</sub>)alkyl-(C=O)-O-,  
where alkyl, alkenyl, alkynyl, phenyl, heteroaryl, heterocyclic, cycloalkyl,  
alkoxy, phenoxy, amino of R<sup>4</sup> is optionally substituted by at least one substituent  
15 independently selected from the group consisting of (C<sub>1</sub>-C<sub>6</sub>)alkyl, (C<sub>1</sub>-C<sub>6</sub>)alkoxy,  
halo(C<sub>1</sub>-C<sub>6</sub>)alkyl, halo, H<sub>2</sub>N-, Ph (CH<sub>2</sub>)<sub>1-6</sub>HN-, (C<sub>1</sub>-C<sub>6</sub>)alkylHN-, (C<sub>5</sub>-C<sub>10</sub>)heteroaryl  
and (C<sub>5</sub>-C<sub>10</sub>)heterocyclyl;  
with the proviso that when R<sup>4</sup> is a substituted phenyl moiety, then (a) R<sup>1</sup> is  
not naphthyl, phenyl or anthracenyl and (b) if R<sup>1</sup> is a phenyl fused with an aromatic  
20 or non-aromatic cyclic ring of 5-7 members wherein said cyclic ring optionally  
contains up to three heteroatoms independently selected from N, O and S, then the  
fused cyclic ring of said R<sup>1</sup> moiety is substituted;  
with the proviso that when R<sup>4</sup> is NH<sub>2</sub> and X is S, then R<sup>1</sup> is not an amino-  
substituted pyridyl or pyrimidinyl moiety; and  
25 with the provisio that when in formula (Ia) R<sup>4</sup> is CH<sub>3</sub> and X is S, R<sup>1</sup> is not a  
3,4-dimethoxy substituted phenyl moiety .

2. A compound of claim 1, wherein R<sup>1</sup> is

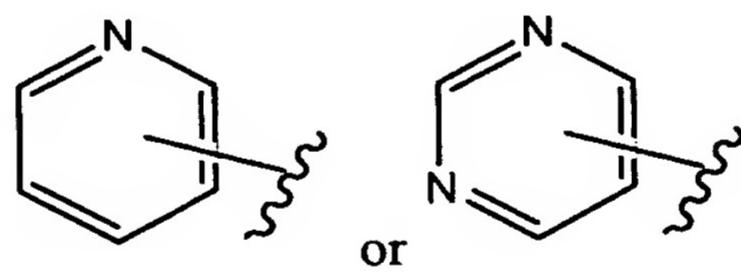


3. A compound of claim 1, wherein R<sup>1</sup> is

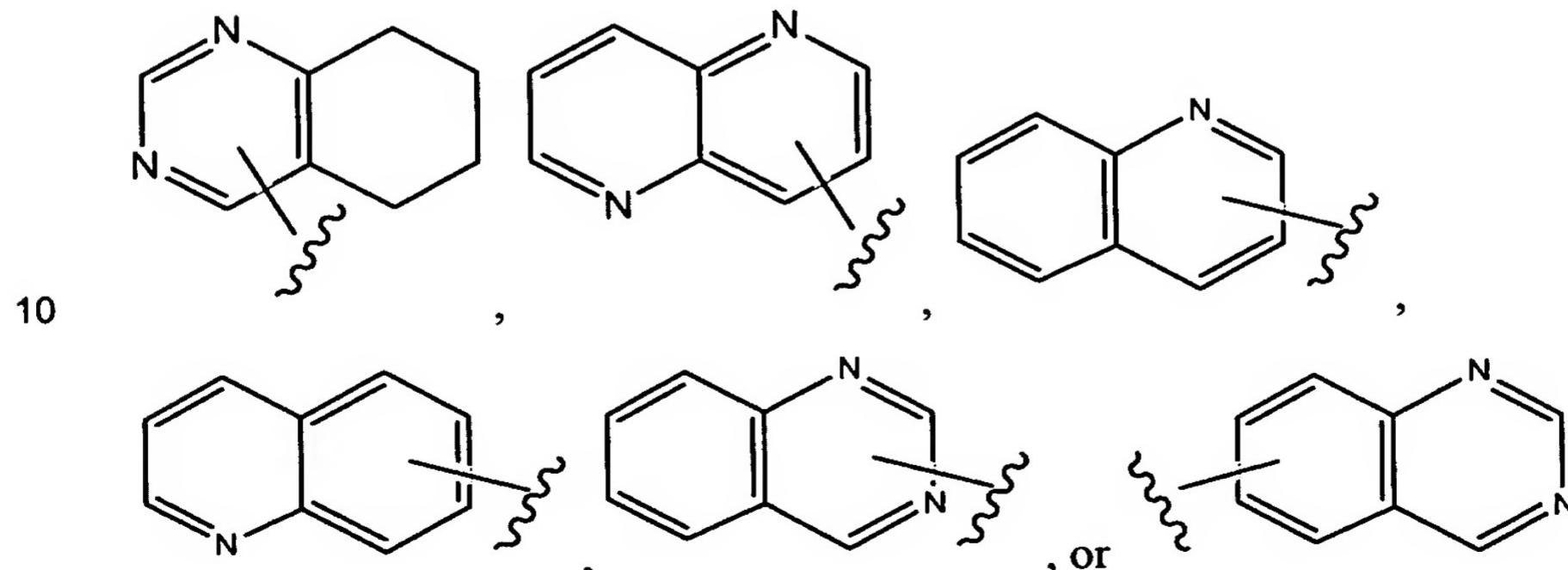


5

4. A compound of claim 1, wherein R<sup>1</sup> is

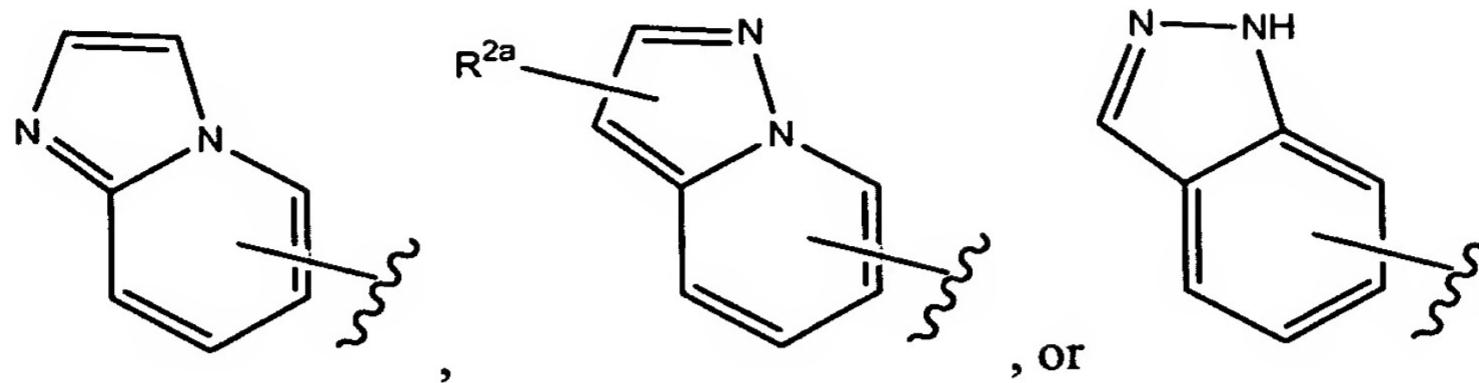


5. A compound of claim 1, wherein R<sup>1</sup> is

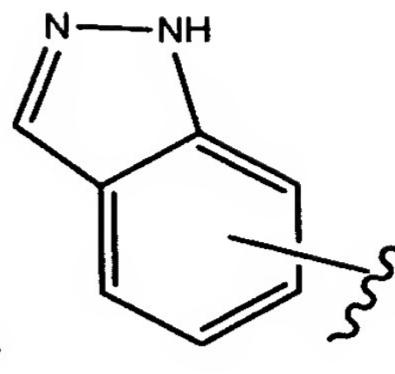


10

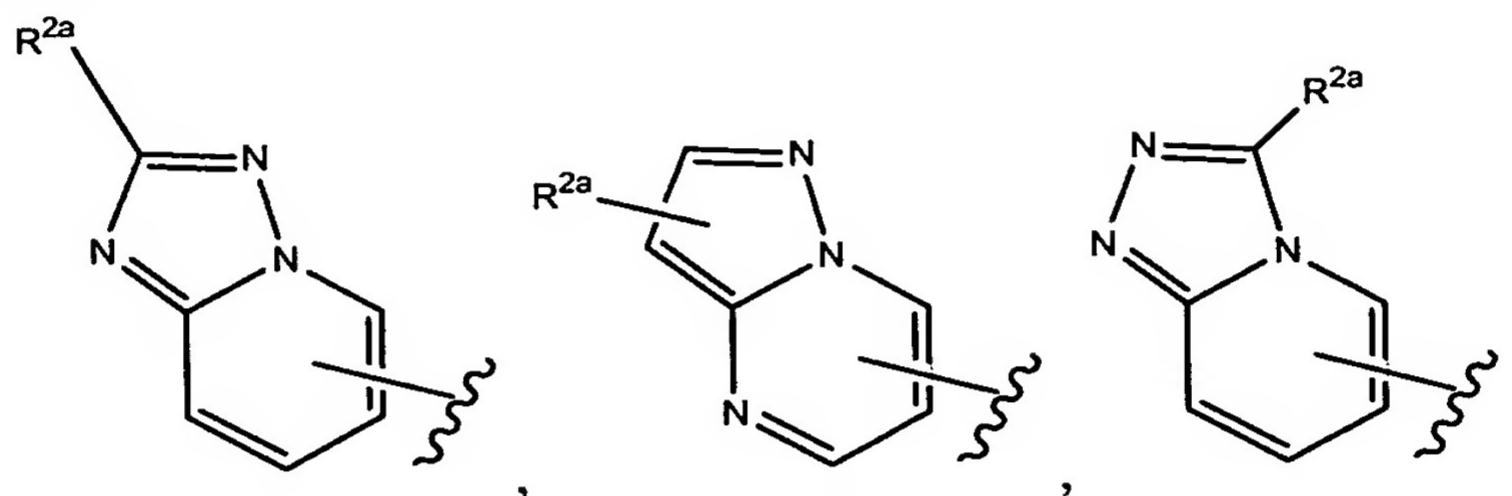
6. A compound of claim 1, wherein R<sup>1</sup> is



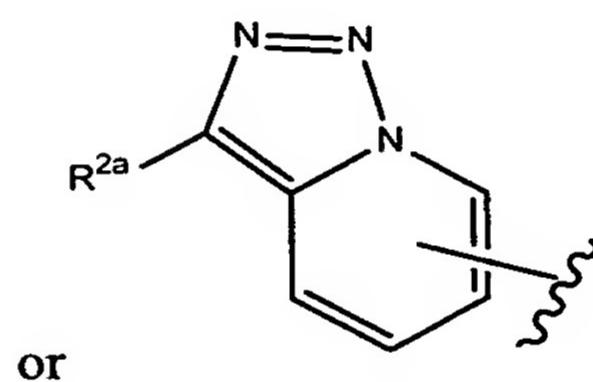
, or



7. A compound of claim 1, wherein R<sup>1</sup> is

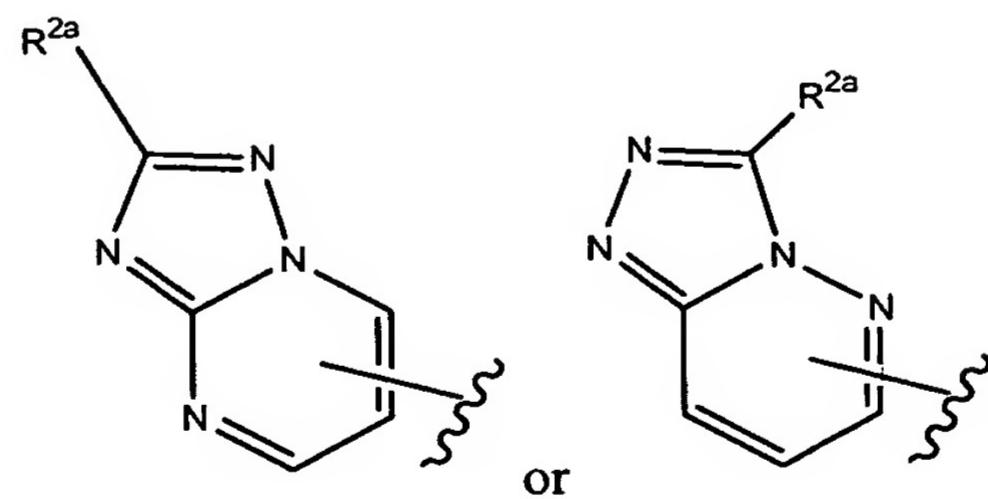


5



or

8. A compound of claim 1, wherein R<sup>1</sup> is



or

10

9. A compound of claim 1, wherein X is O; s is one to two; R<sup>3</sup> is hydrogen or (C<sub>1</sub>-C<sub>6</sub>)alkyl; and R<sup>4</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, or amino.

10. A compound of claim 1, wherein X is S; s is one to two; R<sup>3</sup> is hydrogen or (C<sub>1</sub>-C<sub>6</sub>)alkyl; and R<sup>4</sup> is H, (C<sub>1</sub>-C<sub>6</sub>)alkyl, or amino.

11. A pharmaceutical composition comprising a compound of claim 1 and a  
5 pharmaceutically acceptable carrier.

12. A method of preventing or treating a TGF-related disease state in an animal or human comprising the step of administering a therapeutically effective amount of a compound of claim 1 to the animal or human suffering from the TGF-related  
10 disease state.

13. A method of claim 12, wherein said TGF-related disease state is selected from the group consisting of cancer, glomerulonephritis, diabetic nephropathy, hepatic fibrosis, pulmonary fibrosis, intimal hyperplasia and restenosis, scleroderma,  
15 and dermal scarring.